SEQUENCE LISTING

<110> CHOO, Yen
KLUG, Aaron
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<120> Nucleic Acid Binding Proteins

<130> 71278/264975

<140> US 09/424,487
<141> 1999-11-23

<150> GB 9710809.6
<151> 1997-05-23

<150> PCT/GB98/01512
<151> 1998-05-26

<160> 17

<170> PatentIn Ver. 2.1

<210> 1
<211> 264
<212> DNA
<213> Artificial Sequence

<220>
<221> CDS
<222> (1)..(264)

<220>
<223> Description of Artificial Sequence: encoding nucleic acid binding proteins

<400> 1
gca gaa gag aag cct ttt cag tgt cga atc tgc atg cgt aac ttc agc 48
Ala Glu Glu Lys Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser
1 5 10 15

gat cgt act act ctt acc cgc cac acg agg acc cac aca ggc gag aag 96
Asp Arg Thr Thr Leu Thr Arg His Thr Arg Thr His Thr Gly Glu Lys
20 25 30

cct ttt cag tgt cga atc tgc atg cgt aac ttc agc agg agc gat aac 144
Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser Asp Asn
35 40 45

ctt acg aga cac cta agg acc cac aca ggc gag aag cct ttt cag tgt 192
Leu Thr Arg His Leu Arg Thr His Thr Gly Glu Lys Pro Phe Gln Cys
50 55 60

cga atc tgc atg cgt aac ttc agg caa gct gat cat ctt caa gag cac 240
Arg Ile Cys Met Arg Asn Phe Arg Gln Ala Asp His Leu Gln Glu His
65 70 75 80

cta aag acc cac aca ggc gag aag 264
Leu Lys Thr His Thr Gly Glu Lys
85

<210> 2
<211> 88
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: encoding nucleic acid binding proteins

<400> 2
Ala Glu Glu Lys Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser
1 5 10 15

Asp Arg Thr Thr Leu Thr Arg His Thr Arg Thr His Thr Gly Glu Lys
20 25 30

Pro Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Arg Ser Asp Asn
35 40 45

Leu Thr Arg His Leu Arg Thr His Thr Gly Glu Lys Pro Phe Gln Cys
50 55 60

Arg Ile Cys Met Arg Asn Phe Arg Gln Ala Asp His Leu Gln Glu His
65 70 75 80

Leu Lys Thr His Thr Gly Glu Lys
85

<210> 3
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Nucleic acid binding protein

<220>
<221> BINDING
<222> (1)..(18)
<223> where X is any amino acid

<400> 3
Xaa Cys Xaa Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa His Xaa Xaa
1 5 10 15

Xaa His

<210> 4
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: where X is any amino acid

<220>
<221> BINDING
<222> (1)..(21)

<400> 4
Xaa Cys Xaa Xaa Cys Xaa Xaa Phe Xaa Xaa Xaa Xaa Xaa Leu Xaa Xaa
1 5 10 15

His Xaa Xaa Xaa His
20

<210> 5
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus zinc finger structure

<220>
<221> BINDING
<222> (1)..(26)

<400> 5
Pro Tyr Lys Cys Pro Glu Cys Gly Lys Ser Phe Ser Gln Lys Ser Asp
1 5 10 15

Leu Val Lys His Gln Arg Thr His Thr Gly
20 25

<210> 6
<211> 29
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Consensus zinc finger structure

<220>
<221> BINDING
<222> (1)..(29)

<400> 6
Pro Tyr Lys Cys Ser Glu Cys Gly Lys Ala Phe Ser Gln Lys Ser Asn

1 5 10 15

Leu Thr Arg His Gln Arg Ile His Thr Gly Glu Lys Pro
20 25

<210> 7
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: where x denotes a given combination of the bases at interface between DNA subsites, and the four bases are equally represented at DNA position 3

<220>
<221> BINDING
<222> (1)..(9)

<400> 7
Gly Asn Xaa Xaa Cys Gly Gly Cys Gly
1 5

<210> 8
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: where X denotes a known combination of the two bases at DNA positions 4X and 5X and there is equal probability of any of the four bases at DNA position 3

<220>
<221> BINDING
<222> (1)..(9)

<400> 8
Gly Asn Xaa Xaa Cys Gly Gly Cys Gly
1 5

<210> 9
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: where X denotes a known combination of the two bases at DNA positions 4X and 5X

<220>

<221> BINDING
<222> (1)..(9)

<400> 9
Gly Cys Xaa Xaa Cys Gly Gly Cys Gly
1 5

<210> 10
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger binding protein

<220>
<221> BINDING
<222> (1)..(28)

<400> 10
Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Asp Arg Ser Ser Leu
1 5 10 15

Thr Arg His Thr Arg Thr His Thr Gly Glu Lys Pro
20 25

<210> 11
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger binding protein

<220>
<221> BINDING
<222> (1)..(28)

<400> 11
Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Asp Arg Ser His Leu
1 5 10 15

Thr Arg His Thr Arg Thr His Thr Gly Glu Lys Pro
20 25

<210> 12
<211> 27
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger

binding protein

<220>
<221> BINDING
<222> (1)..(27)

<400> 12
Phe Gln Cys Arg Ile Cys Met Arg Asn Phe Ser Asp Arg Ser Asn Leu
1 5 10 15

Thr Arg His Thr Arg Thr His Thr Gly Glu Lys
20 25

<210> 13
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Zinc finger binding protein

<220>
<221> BINDING
<222> (1)..(9)

<400> 13
Ala Gly Ala Gly Ala Gly Cys Thr Cys
1 5

<210> 14
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: 8bp palindromic sequence which is bound and cleaved by the restriction endonuclease NotI

<220>
<221> BINDING
<222> (1)..(8)

<400> 14
Gly Cys Gly Gly Cys Cys Gly Cys
1 5

<210> 15
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: zinc finger
binding protein

<220>
<221> BINDING
<222> (1)..(9)

<400> 15
Gly Cys Gly Gly Cys Cys Gly Cys Gly
1 5

<210> 16
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: NotI
recognition sequence

<220>
<221> BINDING
<222> (1)..(8)

<400> 16
Gly Cys Gly Gly Cys Cys Gly Cys
1 5

<210> 17
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Amino acid at
position 5 may be Cys or ThrT

<220>
<221> BINDING
<222> (1)..(9)

<400> 17
Gly Cys Gly Gly Tyr Cys Gly Cys Gly
1 5